

IN THE CLAIMS:

Please AMEND claims 1, 3, 4, 6, 7, 9 and 10, and ADD new claims 11 and 12 as follows.

For the Examiner's convenience, all claims currently pending are reproduced below.

1. (Currently Amended) An exposure method ~~wherein~~ comprising:

placing a first surface of a light blocking member having a plurality of openings formed in a mutually adjoining relation ~~is placed~~ at an exposure object side, ~~and wherein light is projected side; and~~

projecting light to the light blocking member from ~~its~~ a second surface side of the light blocking member so that exposure of the exposure object is carried out on the basis of near field light leaking from the openings, ~~characterized in that:~~

wherein interference is caused between surface plasmon polariton waves passing respectively through adjacent openings and going around to the first surface side, and ~~that;~~ on the basis of it the interference, a portion having a decreased light intensity is produced in the exposure object so that the exposure is carried out by use of the decreased light intensity portion.

2. (Original) A method according to Claim 1, wherein an optical latent image corresponding to a difference in contrast between the decreased light intensity portion and a portion where near field light leaks from the opening, is produced in the exposure object.

3. (Currently Amended) A method according to Claim 1 or 2, wherein the exposure object has a thickness which is smaller than a distance between (i) a position in the decreased

light intensity portion where the intensity with respect to a direction [[of]] normal to the first surface is largest and (ii) an interface between the first surface and the exposure object.

4. (Currently Amended) A device manufacturing method ~~characterized by~~ comprising:
an exposure step for exposing a processing object in accordance with an exposure method as recited in ~~any one of Claims 1-3~~ Claims 1 or 2, wherein the processing object comprises a substrate to be processed and an exposure layer to be exposed; and
a processing step of performing a predetermined process to the processing object having been exposed by said exposure step.

5. (Original) A method according to Claim 4, wherein said exposure step includes a process for providing a buffer layer between the substrate of the processing object and the exposure layer thereof and for transferring an exposure pattern formed on the exposure layer to the buffer layer.

6. (Currently Amended) An exposure mask comprising:
a light blocking member having a plurality of openings formed in a mutually adjoining relation, wherein a first surface of the light blocking member is placed at an exposure object side and wherein light is projected to the light blocking member from ~~its~~ a second surface side of the light blocking object so that exposure of the exposure object is carried out on the basis of near field light leaking from the openings, ~~characterized in that;~~ and

wherein interference is caused between surface plasmon polariton waves passing respectively through adjacent openings and going around to the first surface side, and ~~that~~, on the basis of ~~it~~ the interference, a portion having a decreased light intensity is produced in the exposure object so that the exposure is carried out by use of the decreased light intensity portion.

7. (Currently Amended) An exposure mask comprising:

a light blocking member, wherein exposure of an exposure object is carried out on the basis of near field light leaking from a plurality of openings provided in a light blocking member in a mutually adjoining relation, ~~characterized in that~~:

wherein ~~the~~ spacing between adjacent openings is not greater than the wavelength of light used for the exposure, and ~~that~~

wherein an end portion of each of the opening openings at the exposure object side of the light blocking member has a structure effective to reduce scatter of a surface plasmon polariton wave going around to the exposure object side of the light blocking member.

8. (Original) An exposure mask according to Claim 7, wherein the end portion of the opening at the exposure object side has a curved surface shape.

9. (Currently Amended) An exposure apparatus comprising:

a light blocking member, wherein a first surface of ~~[[a]]~~ the light blocking member having a plurality of openings formed in a mutually adjoining relation is placed at an exposure object side, and wherein light is projected to the light blocking member from its a

second surface side of the light blocking member so that exposure of the exposure object is carried out on the basis of near field light leaking from the openings, ~~characterized in that:~~ and wherein interference is caused between surface plasmon polariton waves passing respectively through adjacent openings and going around to ~~the~~ a first surface side of the light blocking member, and ~~that~~; on the basis of it the interference, a portion having a decreased light intensity is produced in the exposure object so that the exposure is carried out by use of the decreased light intensity portion.

10. (Currently Amended) An exposure apparatus having light irradiation means and an exposure mask, wherein exposure of a processing object to be processed is carried out on the basis of near field light leaking from a plurality of openings provided in a mutually adjoining relation in a light blocking member of the exposure mask, ~~characterized in that:~~ and

wherein the wavelength of light used as the light irradiation means is longer than the spacing between adjacent openings of the light blocking member, and ~~that~~ an end portion of each of the opening openings at the processing object side is arranged to reduce scatter of a surface plasmon polariton wave going around to the processing object side of the light blocking member during the exposure.

11. (New) A device manufacturing method comprising:

an exposure step for exposing a processing object in accordance with an exposure method as recited in Claim 3, wherein the processing object comprises a substrate to be processed and an exposure layer to be exposed; and

a processing step of performing a predetermined process to the processing object having been exposed by said exposure step.

12. (New) A method according to Claim 11, wherein said exposure step includes a process for providing a buffer layer between the substrate of the processing object and the exposure layer thereof and for transferring an exposure pattern formed on the exposure layer to the buffer layer.